

The family Omalogyridae G. O. Sars, 1878 (Mollusca, Gastropoda)

in Cuba

with description of eight new species

Emilio ROLÁN

Cánovas del Castillo 22
36202 Vigo, Spain

KEYWORDS: Omalogyridae, *Omalogyra*, *Ammonicera*, Caribbean Sea, Cuba.

ABSTRACT: The species of the family Omalogyridae are studied from the material collected in Cuba. Two new species of *Omalogyra* and six of *Ammonicera* are described.

RESUMEN: Se estudian las especies de la familia Omalogyridae del material recolectado en la isla de Cuba. Se describen dos especies nuevas de *Omalogyra* y seis de *Ammonicera*.

INTRODUCTION

Due to the small size of the species of the family Omalogyridae P. Fischer, 1885, only recently several works with descriptions of new species or taxonomic corrections have been published: SLEURS (1983, 1985a and 1985b), PALAZZI (1988), WARÉN (1991) and ROLAN (1991). Scanning electron microscope photographs of the European species appeared in RODRIGUEZ-BABIO & THIRIOT-QUIÉVREUX (1974), ROLAN (1983) and AARTSEN, MENKHORST & GITTEBERGER (1984). Some comments on this family appear in PALAZZI & GAGLINI (1988) and in BACKELJAU, DE MEYER, JANSSENS, PROESMANS & VADER (1984).

DAUTZENBERG (1889) described *O. ornata* from the Azore Islands. There are not many references to the molluscs of the family Omalogyridae from West Atlantic waters. DALL (1927) described *Lippistes planorbis*, which has

been recently placed in the genus *Palazzia* by WARREN (1991). MOORE (1971) mentions this species to live in deep water. ABBOTT (1974) adds to the latter species, *O. densicostata* (Jeffreys, 1884) (= *Adeuomphalus ammoniformis* in WARREN, 1991) and *O. atomus* (Philippi, 1841) (a species described from European waters).

Abbreviations used:

MNCN Museo Nacional de Ciencias Naturales of Madrid
MNHN Museum National d'Histoire Naturelle of Paris
BMNH British Museum (Natural History) of London
AMNH American Museum of Natural History, New York
ZMA Zoologisch Museum of Amsterdam
IES Instituto de Ecología y Sistemática of La Habana

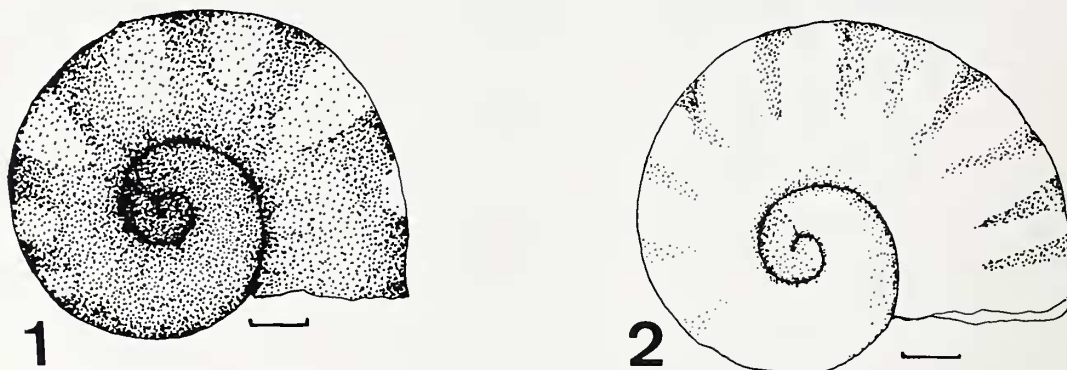


Figure 1.- *Omalogyra fuscopardalis* sp. n. Colour pattern.

Figure 2.- *Omalogyra zebrina* sp. n. Colour pattern.
(scale 0.1 mm)

Figures 3 to 8 : opposite.

Figure 3.- *Omalogyra fuscopardalis* sp. n. Holotype. MNCN.

Figure 4.- *Omalogyra zebrina* sp. n. Holotype. MNCN.

Figure 5.- *Omalogyra fuscopardalis* sp. n. Paratype. CER.

Figure 6.- *Omalogyra zebrina* sp. n. Paratype. CER.

Figure 7.- *Omalogyra fuscopardalis* sp. n. Protoconch.

Figure 8.- *Omalogyra zebrina* sp. n. Protoconch.
(scale 0.1 mm)

SYSTEMATIC PART

Family OMALOGYRIDAE P. Fischer, 1885

Genus *Omalogyra* Jeffreys, 1860

Omalogyra fuscopardalis sp. n.

Figs. 1, 3, 5, 7

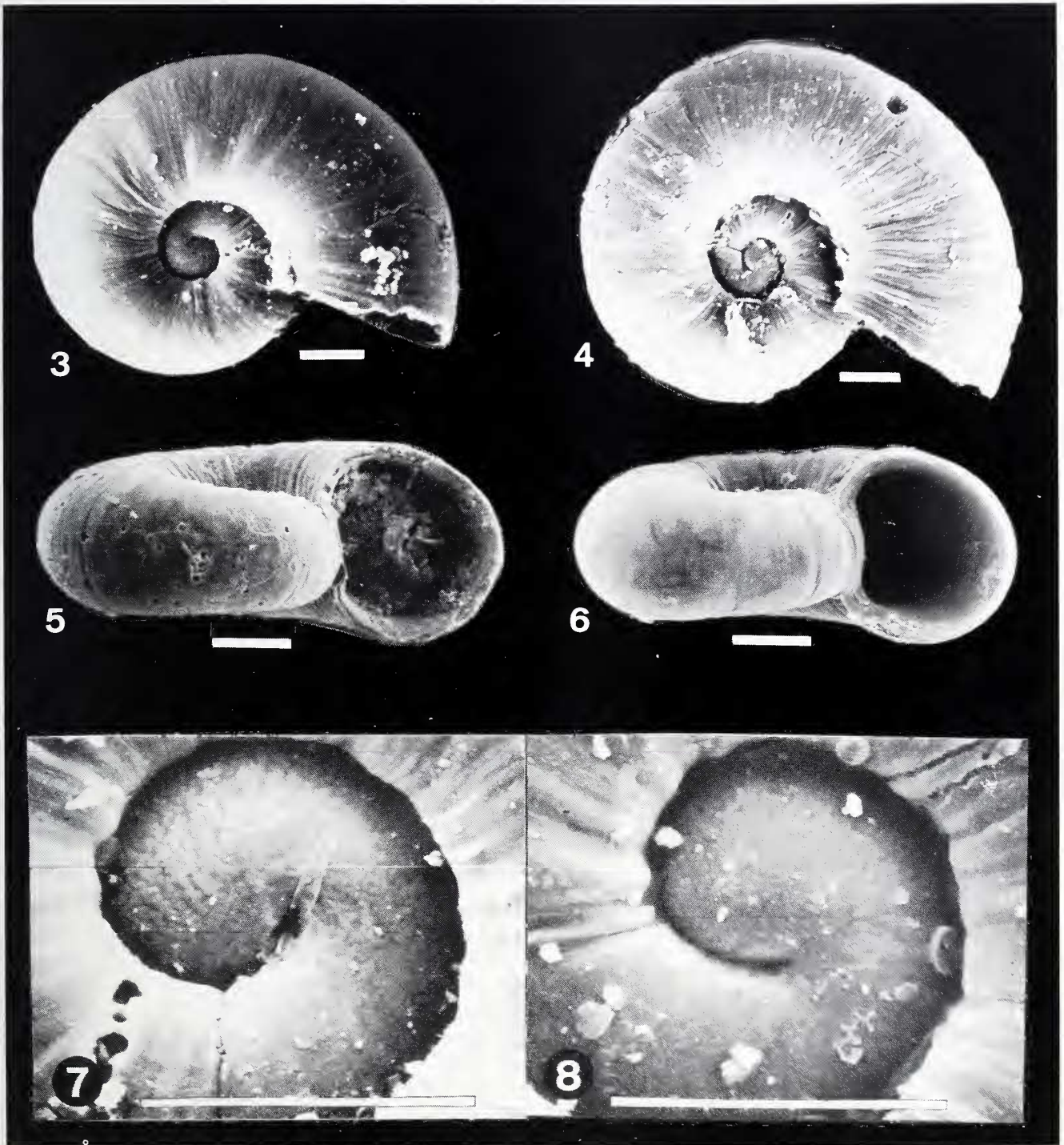
Material. North of Cuba: 6 shells and 1 fragment at 3 m, Baracoa.

Type material. Holotype MNCN n^o 15.05/6791 (Fig. 3) (shell diameter: 0.68 mm), North of Cuba, Baracoa, 3m; 1 paratype in AMNH, n^o 226444 ; 1 paratypes in IES; 3 paratypes in the author's collection.

Description. Shell (Figs. 1 & 3) small, with a diameter between 0.4 and 0.7 mm, planispiral, irregularly brown coloured, with irregular paler stripes on the periphery (Fig. 1) and darker at the suture.

Protoconch (Fig. 7) of 3/4 whorl, with small tubercles.

Teleoconch between 1 1/4 and 1 1/2 whorls, smooth, but with few axial undulated ribs, more evident near the suture, and very tiny growth striae all over the shell. The growth of the spire is slow. The spire is not entirely planiform (Fig. 5), but slightly deviated. The aperture is subcircular, with a slightly convex section where



Figures 9 to 15 : opposite.

Figure 9.- *Ammonicera sculpturata* sp. n. Holotype. MNCN.

Figure 10.- *Ammonicera minortalis* sp. n. Holotype. MNCN.

Figure 11.- *Ammonicera minortalis* sp. n. Paratype. CER.

Figure 12.- *Ammonicera sculpturata* . sp. Paratype. CER.

Figure 13.- *Ammonicera minortalis* sp. n. Protoconch.

Figure 14.- *Ammonicera sculpturata* sp. n. Protoconch.

Figure 15.- *Ammonicera minortalis* sp. n. Protoconch.

(scale 0.1 mm)

touching the last whorl, and it has a little prominence towards the right near the suture and towards the left near the periphery.

Etymology. The specific name *fuscopardalis* refers to the colour of the shell with stripes resembling those of a feline.

Discussion. The shell is similar to *O. disculus* Palazzi, 1988 but its colour pattern is more irregular than in the latter which lacks the axial elevations. *O. undosa* Palazzi, 1988 is white and has more evident axial prominences. *O. atomus* (Philippi, 1841) has a smooth protoconch and a circular aperture.

Omalogyra zebrina sp. n.

Figs. 2, 4, 6, 8

Material. North of Cuba: 19 shells at 4 m, Baracoa; 2 shells at 5 m, Jibacoa.

Type material. Holotype MNCN n° 15.05/6792 (Fig. 4) (shell diameter: 0.77 mm), North of Cuba, Baracoa, 4 m; 1 paratype AMNH n° 226445; 1 paratype BMNH n° 1992098 ; 1 paratype ZMA n° 3.92.043; 1 paratype IES ; 1 paratype in MNHN and 13 in the author's collection

Description. Shell (Figs. 2 & 4) small, with a diameter between 0.4 and 0.8 mm, planispiral,

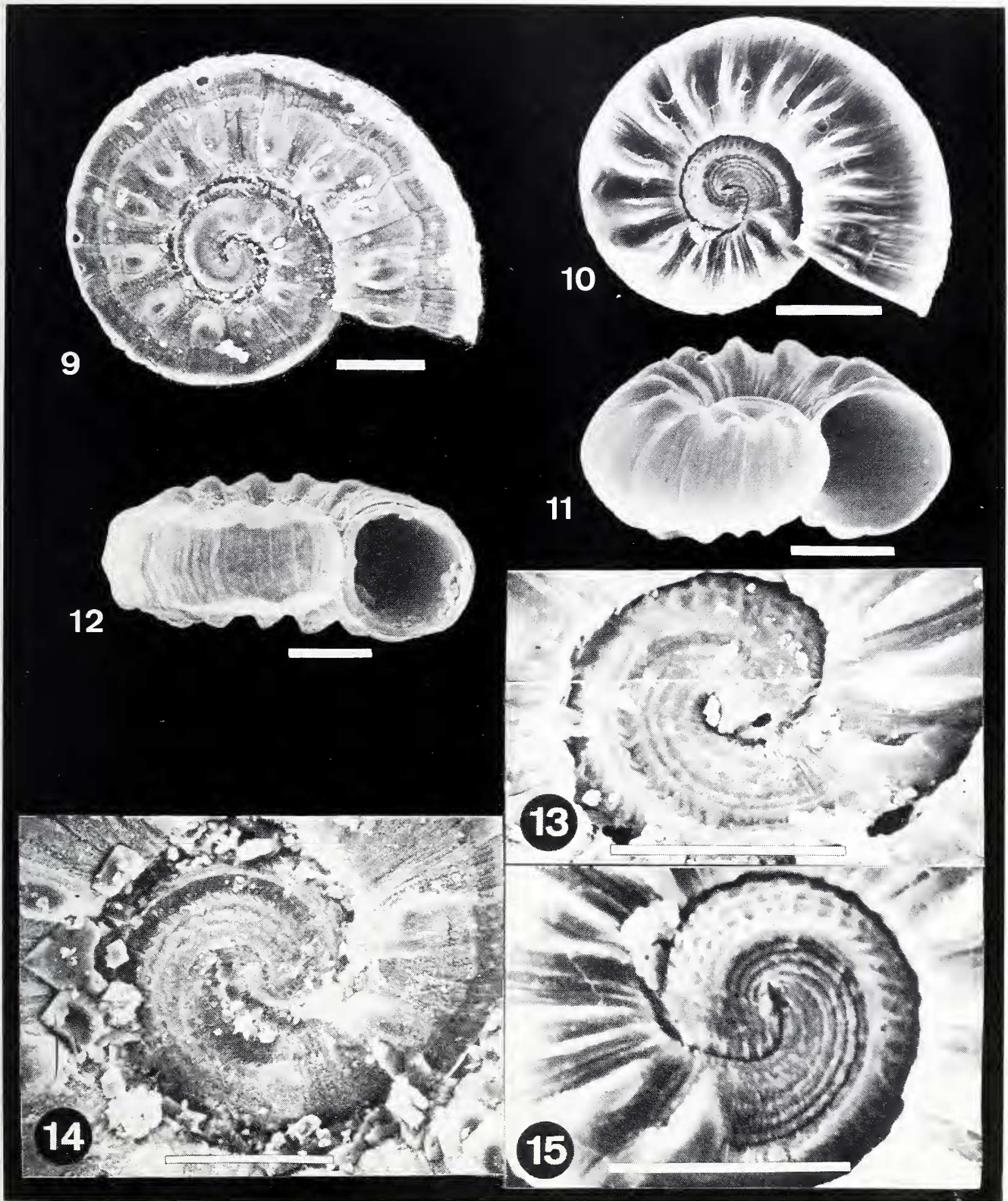
whitish with irregular narrow brown stripes, more evident at the periphery of the last half whorl of the shell.

Protoconch (Fig. 8) of 3/4 whorl, with very small tubercles.

Teleoconch between 1 1/4 and 1 1/2 whorls, smooth but with very densely spaced growth striae. The growth of the spire is slow; all whorl coiled exactly in the same plane. The aperture is not circular because the last whorl produces a little protrusion into, and also is more prominent towards the left near the periphery and towards the right near the suture.

Etymology. It is named after the similarity with a zebra pattern.

Discussion. *Omalogyra zebrina* sp. n. is different from *O. atomus* because the latter species is brown, and its protoconch is smooth. *O. disculus* has a very different colour pattern while *O. undosa* differs in being uniformly white coloured and in having more evident axial prominences. *O. fuscopardalis* sp. n. has a different darker colour, with a little more marked tubercles on the protoconch and its whorls are not coiled in the same plane. The latter species lives simpatrically with *O. zebrina* sp. n. *O. ornata* (Dautzenberg, 1889) from the Azores has a grey colour with a similar pattern of axial lines but reaches 3 and 1/2 whorls and measures 1.3 mm, being much larger than *O. zebrina* sp.n.



Figures 16 to 21 : opposite.

Figure 16.- *Ammonicera familiaris* sp. n. Holotype. MNCN.

Figure 17.- *Ammonicera albospeciosa* sp. n. Holotype. MNCN.

Figure 18.- *Ammonicera familiaris* sp. n. Paratype. CER.

Figure 19.- *Ammonicera albospeciosa* sp. n. Paratype. CER.

Figure 20.- *Ammonicera familiaris* sp. n. Protoconch.

Figure 21.- *Ammonicera albospeciosa* sp. n. Protoconch.
(scale 0.1 mm)

Genus *Ammonicera* Vayssière, 1893

Ammonicera sculpturata sp. n.

Figs. 9, 12, 14

Material. North of Cuba: 53 shells at 4 m, Baracoa; 5 shells at 5 m, El Salado; 11 shells at 3 m, Comodoro; 5 shells at 4 m, Jibacoa. South of Cuba: 6 shells at 20 m, Cayo Matías; 41 shells at 10 m, Cayo Cantiles; 22 shells at 20 m, Archipelago of Los Canarreos.

Type material. Holotype MNCN n° 15.05/6793 (Fig. 9) (shell diameter: 0.47 mm) North of Cuba, Baracoa, 3 m; 4 paratypes AMNH n° 226451; 4 paratypes BMNH n° 1992103; 4 paratypes ZMA n° 3.92.044; 4 paratypes IES; 4 paratypes MNHN; 20 paratypes in the author's collection (all from Baracoa).

Description. Shell (Fig. 9) small, diameter between 0.3 and 0.5 mm, planispiral, dull, with dark brown colour except that the aperture is whitish.

Protoconch (Fig. 14) of 3/4 whorl, bearing one prominent cord limited externally by a deep canal and with two weaker small cords on its inner part. The whole surface is rough.

Teleoconch between 1 and 1 1/2 whorls, with prominent tubercles bordered near the periphery by one or two undulating striae and a prominent undulating cord. On the first whorl the number of tubercles ranges between 9 to 11. The

periphery (Fig. 14) is slightly angularly prominent in the middle showing the growth striae which are present in the rest of the shell, and with very tiny spiral undulating striae (Fig. 12).

Etymology. The specific name refers to the irregular sculpture of the surface of the shell.

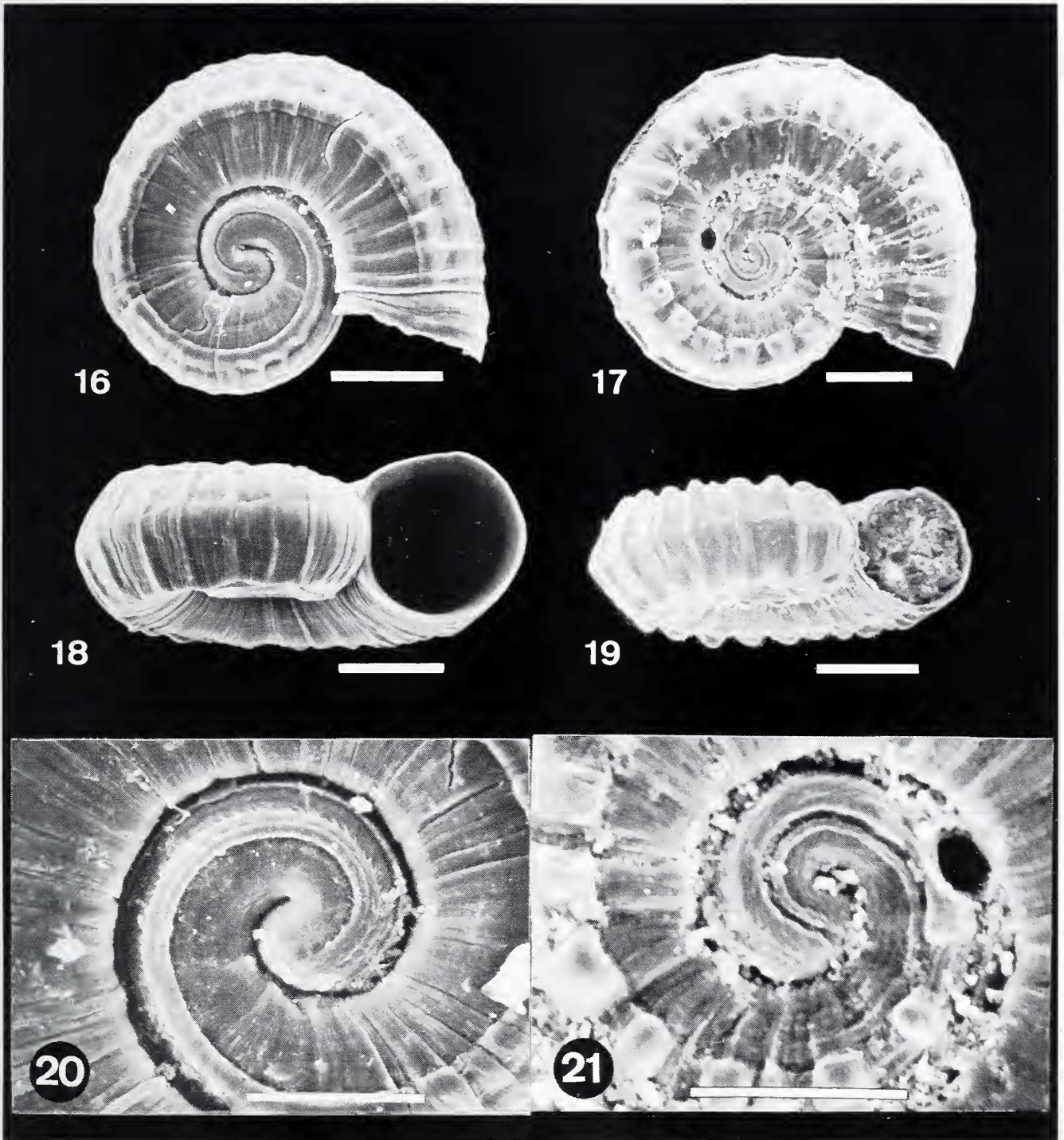
Discussion. The shell of *A. sculpturata* resembles *A. nodicarinata* (Sleurs, 1983) but the latter species is more brilliant, transparent yellow-brown, with prominent spiral striae and with a shorter protoconch.

Ammonicera minortalis sp. n.

Figs. 10, 11, 13 & 15

Material. North of Cuba: 64 shells at 4 m, Baracoa; 12 shell at 3 m, Comodoro; 4 shells at 5 m, El Salado. South of Cuba: 2 shells at 2 m, Cayo Diego Pérez; 8 shells at 20 m, Cayo Matías; 8 shells at 20 m, Cayo Cantiles; 7 shells at 20 m, Archipelago of Los Canarreos.

Type material. Holotype MNCN n° 15.05/6794 (Fig. 10) (shell diameter: 0.35 mm) North of Cuba, Baracoa, 4 m; 3 paratypes AMNH, n° 226450; 3 paratypes BMNH, n° 1992102; 3 paratypes ZMA, n° 3.92.045; 3 paratypes IES; 3 paratypes MNHN; 20 paratypes in the author's collection (all from Baracoa).



Figures 22 to 28 :opposite.

Figure 22.- *Ammonicera lineofuscata* sp. n. Holotype. MNCN.

Figure 23.- *Ammonicera circumcirra* sp. n. Holotype. MNCN.

Figure 24.- *Ammonicera lineofuscata* sp. n. Paratype. CER.

Figure 25.- *Ammonicera lineofuscata* sp. n. Paratype. CER.

Figure 26.- *Ammonicera circumcirra* sp. n. Paratype. CER.

Figure 27.- *Ammonicera lineofuscata* sp. n. Protoconch.

Figure 28.- *Ammonicera circumcirra* sp. n. Protoconch.

(scale 0.1 mm)

Description. Shell (Figs. 10 & 11) small, diameter between 0.2 and 0.4 mm, planispiral, brilliant, with uniform dark brown colour except near the aperture, which is pale brown.

Protoconch (Figs. 13 & 15), of 3/4 whorl, with a prominent cord with several smaller cords at each side, crossed by very fine axial striae which are more evident on the external part.

Teleoconch between 1 and 1 1/2 whorls, with a sculpture of very prominent elongated tubercles, in numbering between 13 to 17 on the first whorl. Between them are fine growth striae. The periphery (Fig. 11) is uniformly rounded, smooth, and with only very fine growth striae.

Etymology. The specific name refers to the latin names *minor* and *talis* for its very small size even unusual for the genus.

Discussion. Only *A. japonica* Habe, 1972 is superficially similar but it has very constant spiral striae. *A. rota* (Forbes & Hanley, 1853) has a similar teleoconch but its protoconch (see RODRIGUEZ-BABIO & THIRIOT-QUIÉVREUX, 1974, as *A. fischeriana*) is very different.

Ammonicera familiaris sp. n.

Figs. 16, 18, 20

Material. North of Cuba: 28 shells at 4 m, Baracoa; 5 shells at 5 m, El Salado; 7 shells at 3 m, Comodoro; 3 shells at 4 m, Jibacoa. South

of Cuba: 4 shells at 20 m, Cayo Cantiles; 4 shells at 20 m, Cayo Matías.

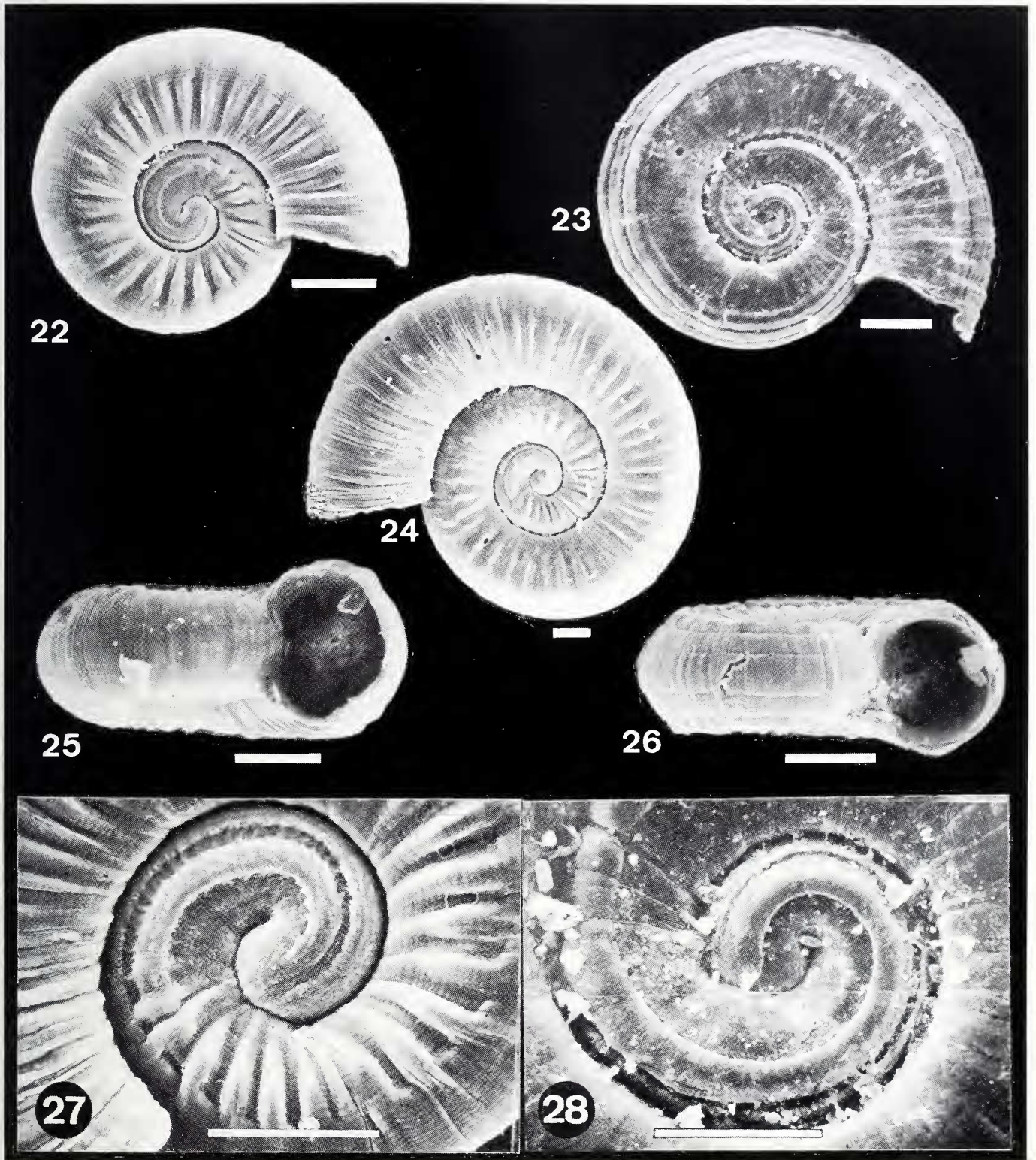
Type material. Holotype MNCN n° 15.05/6795 (Fig. 16) (shell diameter: 0.37 mm) North of Cuba, Baracoa, 4 m; 2 paratypes AMNH n° 226448; 2 paratypes BMNH n° 1992100; 2 paratypes ZAM n° 3.92.046; 2 paratypes IES ; 2 paratypes MNHN; 17 paratypes in the author's collection (all from Baracoa).

Description. Shell (Figs. 16 & 18) small, diameter between 0.3 and 0.5 mm, planispiral, more concave at one side, glossy, with uniform yellowish colour.

Protoconch (Fig. 20) of 3/4 whorl, with early portion bearing 2 spiral cords, the external slightly serrated; the 2 spiral cords are fused to 1 prominent spiral cord on last half.

Teleoconch between 1 and 1 1/2 whorls, with three spiral cords, one at each side and the third at the periphery which is weakly angulated. There are narrow axial ridges which are more evident at the periphery, crossing the spiral cords and forming a small tubercle on the lateral ones. These axial ridges are not always regular and they are number between 20 to 30 the first whorl. There are growth striae between them with only very thin spiral striae. The aperture is circular.

Etymology. The specific name refers to the apparent similarity with the European species.



Discussion. *Ammonicera familiaris* sp. n. seems superficially similar to *A. fischeriana* (Monterosato, 1869) in its sculpture. But the Mediterranean species has a cord of a brown colour on a cream base and less axial ridges and tubercles (12-16) on the first whorl, the tubercles of *A. familiaris* sp. n. being less prominent. This species can be distinguished from *A. circumcirra* sp. n. by its yellow colour while the latter has a brown coloured line on every side furthermore the latter has four evident grooves at the periphery.

Ammonicera albospeciosa sp. n.
Figs. 17, 19, 21

Material. North of Cuba: 4 shells at 4 m, Baracoa; South of Cuba: 2 shells at 20 m, Cayo Matías; 1 shell at 6 m, Cayo Avalos.

Type material. Holotype MNCN n° 15.05/6796 (Fig. 17) (diameter: 0.47 mm) North of Cuba, Baracoa, 4 m; 1 paratype AMNH n° 226446 (Cayo Matías); 1 paratype BMNH n° 1992099 (Cayo Matías); 1 paratype IES (Baracoa); 1 paratype ZMA n° 3.92.047 (Cayo Avalos); 2 paratypes in the author's collection (Baracoa).

Description. Shell (Figs. 17 & 19) small, diameter between 0.4 and 0.6 mm, opaque, planispiral, of milk-white colour.

Protoconch (Fig. 21) of 1/2 whorl with two spiral cords, the external one being wider and with a narrow deep canal between them.

Teleoconch between 1 and 1 1/2 whorls being on each side a spiral cord, with uniform, elevated and almost rectangular tubercles, which number approximately 15 on the first whorl. Each one is extended in axial ridges rounding the whole whorl. The periphery has another spiral cord crossed by the axial ridges but without evident tubercles. There are fine growth lines with few spiral striae between the ridges.

Etymology. The specific name refers to the white colour of the shell and its spectacular aspect.

Discussion. The milky white colour and the very prominent tubercles differentiate this species from the other species known from the Atlantic Ocean. *A. angulata* Sleurs, 1985 is similar but transparent and the peripheral cord is more prominent. Also *A. extracarinocostata* Sleurs, 1985 is transparent and its protoconch is different.

Ammonicera lineofuscata sp. n.
Figs. 22, 24, 25, 27

Material. North of Cuba: 11 shells at 4 m, Baracoa; 1 shell at 3 m, Comodoro. South of Cuba: 3 shells at 4 m, Cayo Matías; 1 shell at 6 m, Cayo Avalos; 4 shells at 5 m, Cayo Cantiles.

Type material. Holotype MNCN n° 15.05/6797 (Fig. 22) (diameter: 0.45 mm), North of Cuba, Baracoa, 4 m; 1 paratype AMNH n° 226449; 1 paratype BMNH n° 1992101; 1 paratype IES; 1 paratype ZMA n° 3.92.048; 1 paratype MNHN; 5 paratypes in the author's collection (all from Baracoa).

Description. Shell (Figs. 22, 24 & 25) small, diameter between 0.4 and 0.7 mm, planispiral, of translucent white colour with three brown lines, one on each side with the third in the periphery.

Protoconch (Fig. 27) of 3/4 whorl with a prominent cord with serrated boundaries bordered externally by a depression, separated from the suture by another elevation. Surface is entirely covered with tiny perforations.

Teleoconch between 1 and 2 whorls with very elongated and slightly prominent tubercles (like ribs), numbering 25-29 on the first whorl. The interspaces between them are bordered near the convexity by a submerged spiral cord which with continuous the protoconch canal (Fig. 27).

In big specimens (Fig. 24) this sculpture is attenuated at the end of the spire. The whole teleoconch is covered with very fine striae, also present at the periphery, which is uniformly convex.

Etymology. The specific name refers to the brown spiral lines of the shell.

Discussion. The fine constant spiral striation and the periphery without any axial sculpture differentiate *A. lineofuscata* sp. n. from *A. rota* and *A. rotundata* (Palazzi, 1988). *A. lygnea* (Palazzi, 1988) has spiral cords and an uniform brown colour. *A. multistriata* Rolán, 1991 from the Cape Verde Islands has tuberculated and different spiral cord, and *A. robusta* Rolán, 1991 has prominent axial prominences and lacks the spiral brown line. The brown spiral line is present in *A. fischeriana* (Monterosato, 1869), but the colour of the shell is not white and lacks the spiral striae.

Ammonicera circumcirra sp. n.

Figs. 23, 26, 28

Material. North of Cuba: 7 shells at 4m, Baracoa; 1 shell at 4 m, Jibacoa.

Type material. Holotype MNCN n° 15.05/6798 (Fig. 23) (diameter: 0.58 mm), North of Cuba, Baracoa; 1 paratype IES (Baracoa); 1 paratype AMNH n° 226447. (Baracoa); 4 paratypes in the author's collection.

Description. Shell (Figs. 23 & 26) small, dimensions between 0.4 and 0.6 mm, brilliant, translucent, of yellow colour with a brown line on each side of the shell and one additional at the periphery.

Protoconch (Fig. 28) of 1 whorl, bearing a prominent smooth cord, bordered by a narrow canal on its outside.

Teleoconch between 1 and 1 1/2 whorls, showing a prominent cord at each side, near the

convex angle of the shell. In the whole teleoconch are present irregular, fragile and variable narrow ridges which cross the cords forming weak elevations. These ribs are slightly marked in the convexity, which is uniformly curved. Four spiral grooves are present at the periphery. Aperture is circular.

Etymology. The specific name refers to the coloured cord and the peripheral grooves which run around the spire.

Discussion. The general shell sculpture may have a similar aspect as in *A. fischeriana*, *A. rotundata* or *A. familiaris* sp. n. but the grooves at the periphery perfectly differentiate *A. circumcirra* sp. n. from its congeners.

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